



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,205	07/01/2003	Robert S. Horton	BUR920030019US1	1204
28211	7590	11/04/2004	EXAMINER	
FREDERICK W. GIBB, III MCGINN & GIBB, PLLC 2568-A RIVA ROAD SUITE 304 ANNAPOLIS, MD 21401			VU, QUANG D	
			ART UNIT	PAPER NUMBER
			2811	
DATE MAILED: 11/04/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/604,205	<b>Applicant(s)</b> HORTON ET AL.	
	<b>Examiner</b> Quang D Vu	<b>Art Unit</b> 2811	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 August 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,708,967 to Clarke.

Regarding claim 1, Clarke (figures 1-2) inherently teaches an integrated circuit chip comprising:

a segmented data line (the data lines between the transmitter and the antenna receiver);

and

data propagators (SPA1 and SPA2) positioned between segments (segments of data lines are between the SPA1 and the transmitter and between the SPA2 and the antenna receiver) of the segmented data line,

wherein the data propagators (SPA1 and SPA2) are adapted to simultaneously propagate different data portions along segments of the segmented data line (the data lines between the transmitter and the antenna receiver), such that a first segment (first segment of SPA1 and transmitter) of the segmented data line carries a second segment (SPA2 and antenna receiver) of the a first data portion and segmented data line simultaneously carries a second data portion.

Regarding claim 20, the disclosures of Clarke are discussed as applied to claim 1 above.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,708,967 to Clarke in view of US Patent No. 5,263,027 to Sakaguchi.

Regarding claim 2, Clarke differs from the claimed invention by not showing a collector connected to the segmented data line, wherein the collector is adapted to combine the different data portions into a single data transmission. However, Sakaguchi teaches receiver (or collector) systems for receiving a plurality of signals through a single transmission line (column 1, lines 6-8). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Sakaguchi into the device taught by Clarke because it receives the transmission signals. The combined device shows a collector connected to the segmented data line, wherein the collector is adapted to combine the different data portions into a single data transmission.

Regarding claim 5, the combined device shows the segmented data line comprises a single data communication line between a single data source and a single data target.

Regarding claim 7, the combined device shows the data propagators are adapted to return a data receipt acknowledgment to a previous data propagator as each of the data propagators forward data to the next data propagator.

5. Claims 3, 6 and 21-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,708,967 to Clarke in view of US Patent No. 5,640,422 to Johnson.

Regarding claim 3, Clarke differs from the claimed invention by not showing an initiator adapted to break up the single data transmission into the different data portions. However, Johnson teaches the transmitters (or initiators) transmit the combined information signals and deploys at a plurality of transmission locations (column 18, lines 23-26). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Johnson into the device taught by Clarke because it transmits the signals. The combined device shows an initiator adapted to break up the single data transmission into the different data portions.

Regarding claim 6, the combined device shows the segmented data line comprises a data communication network between at least one data source and multiple data targets.

Regarding claim 21, Clarke differs from the claimed invention by not showing breaking a single data into the different data portions. However, Johnson teaches the transmitters (or initiators) transmit the combined information signals and deploys at a plurality of transmission locations (column 18, lines 23-26). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Johnson into the device taught by Clarke because it transmits the signals. The combined device shows

Art Unit: 2811

breaking a single data transmission into different data portions, wherein the different data portions include the first data portion and the second data portion.

Regarding claim 22, the combined device shows reassembling the different data portions into the single data transmission after all of the different data portions have been individually transmitted along all portions of the segmented data line.

Regarding claim 23, the combined device shows the data propagators are positioned between each segment of the data line, and returning a data receipt acknowledgment to a previous data propagator as data to the next data propagator.

Regarding claim 24, the combined device shows simultaneously propagates different data portions along segment of the segmented data line, such that the second segment of the segmented data line carries the first data portion and the first segment of the segmented data line simultaneously carries the second data portion.

Regarding claim 25, the disclosures of Clarke and Johnson are discussed as applied to claims 1 and 3 above.

Regarding claim 26, the combined device shows data propagators are positioned between each segments of the segmented data line, and returning a data receipt acknowledgment to a previous data propagator as each of the data propagators forward data to the next data propagator.

Regarding claim 27, the combined device shows simultaneously propagates different data portions along segments of the segmented data line, such that the second segment of the segmented data line carries the first data portion and the first segment of the segmented data line simultaneously carries the second data portion.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clarke in view of Sakaguchi, and further in view of US Patent No. 6,606,360 to Dunning et al.

Regarding claim 4, the disclosures of Clarke and Sakaguchi are discussed as applied to claim 2 above.

The combined device differs from the claimed invention by not showing the combined device shows the different data portions comprise self-timed data portions. However, Dunning et al. teach the receiver used self-timed (column 5, lines 23-27). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Dunning et al. into the device taught by Clarke and Sakaguchi because it times the transmission signals.

7. Claims 8, 9, 13, 14, 15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,708,967 to Clarke in view of US Patent Application Publication No. 2003/0101170 to Edelstein et al.

Regarding claim 8, Clarke (figures 1-2) teaches an integrated circuit chip comprising:  
at least one data propagator (SPA1 and SPA2) connected to the first segment (first segment of SPA1 and transmitter) of the segment data line (the data lines between the transmitter and the antenna receiver) and to a second segment (SPA2 and antenna receiver) of the segmented data line, wherein the data propagator is adapted to send a data receipt acknowledgement to the data transmitter (TxA) and to propagate the data along the second segment of the segment data line, such that the first segment (first segment of SPA1 and transmitter) of the segmented data

Art Unit: 2811

line carries a first data portion and the second segment (SPA2 and antenna receiver) of the segment data line simultaneously carries a second data portion; and a data receiver (antenna receiver) connected to the second segment of the segment data line.

Clarke differs from the claimed invention by not showing a data source and a data target. However, Edelstein et al. teach the propagators and data source (paragraph [0028]) and the data target (paragraph [0048]). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Edelstein et al. into the device taught by Clarke because it provides the source and target of the data information for transmitting and receiving signals. The combined device shows a segmented data line between the data source and the data target; a data transmitter connected to the data source and to a first segment of the segment data line, wherein the data transmitter is adapted to prepared data from the data source for transmission along the segmented data line; wherein the data receiver is adapted to prepare data from the second segment of the segment data for receipt by the data target.

Regarding claim 9, the combined device shows the data transmitter, the data propagator, and the data receiver are synchronized with each other.

Regarding claim 13, the combined device shows the data source and the data target are located on a single integrated circuit chip.

Regarding claim 14, the disclosures of Clarke and Edelstein et al. are discussed as applied to claim 8 above.

Regarding claim 15, the combined device shows the data transmitter, the data propagator, and the data receiver are synchronized with each other.



Art Unit: 2811

Regarding claim 19, the combined device shows the data source and the data target are located on a single integrated circuit chip.

8. Claims 10, 11, 12, 16, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clarke in view of Edelstein et al., and further in view of US Patent No. 6,606,360 to Dunning et al.

Regarding claim 10, the disclosures of Clarke and Edelstein et al. are discussed as applied to claims 8, 9 and 13 above.

The combined device differs from the claimed invention by not showing the data break up a data segment received from the data source into a plurality of smaller self-timed data portions. However, Dunning et al. teach the receiver used self-timed (column 5, lines 23-27). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Dunning et al. into the device taught by Clarke and Edelstein et al. because it times the transmission signals.

Regarding claim 11, the combined device shows the data transmitter and the data propagator are adapted to transmit one of the self-timed data portions along each of the segments of the segmented data line at a time, such that each of the segments of the segmented data line simultaneously transmits a different self-timed data portion.

Regarding claim 12, the combined device shows the data reassemble the self-timed data portions back into the data segment.

Regarding claim 16, the disclosures of Clarke and Edelstein et al. are discussed as applied to claims 14, 15 above.

Art Unit: 2811

The combined device differs from the claimed invention by not showing the data break up a data segment received from the data source into a plurality of smaller self-timed data portions. However, Dunning et al. teach the receiver used self-timed (column 5, lines 23-27). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Dunning et al. into the device taught by Clarke and Edelstein et al. because it times the transmission signals.

Regarding claim 17, the combined device shows the data transmitter and the data propagator are adapted to transmit one of the self-timed data portions along each of the segments of the segmented data line at a time, such that each of the segments of the segmented data line simultaneously transmits a different self-timed data portion.

Regarding claim 18, the combined device shows the data reassemble the self-timed data receiver it is adapted to portions back into the data segment.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

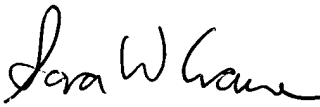
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang D Vu whose telephone number is 571-272-1667. The examiner can normally be reached on Monday-Friday.

Art Unit: 2811

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee can be reached on 571-272-1732. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

qv  
October 27, 2004

  
Sara Crane  
Primary Examiner